

In the Claims:

1. (Currently Amended) A power supply system for an automotive vehicle comprising:
a first power source having a first positive terminal and a first negative terminal;
a second power source having a second positive terminal and a second negative terminal;
a common electrical node between the first power source and the second power source;
a first load coupled between said first positive terminal and said common node;
a second load coupled to said first positive terminal;
an inverter;
said a switch coupled to said second positive terminal, said second negative terminal and said inverter, said switch having a first position electrically coupling said second load to said second positive terminal and a second position electrically coupling said second negative terminal to said second load; and
a controller coupled to said switch controlling the switching of said switch in response to a predetermined condition.

2. (Original) A power supply system as recited in claim 1 wherein the predetermined condition comprises the second power source being charged.

3. (Original) A power supply system as recited in claim 2 further comprising a sensor coupled to said first terminal of said second power source and said controller.

4. (Currently Amended) A power supply system as recited in claim 1 wherein the first power source and the second power source are disposed with a housing an enclosure.

5. (Currently Amended) A power supply system as recited in claim 4 wherein said switch is disposed within the ~~housing~~ enclosure.

6. (Original) A power supply system as recited in claim 1 wherein the second power source comprises a capacitor.

7. (Original) A power supply system as recited in claim 6 wherein said capacitor comprises an ultra capacitor.

8. (Original) A power supply system as recited in claim 6 further comprising a service discharge circuit coupled to said capacitor.

9. (Original) A power supply system as recited in claim 8 wherein said service discharge circuit is coupled in parallel to said capacitor.

10. (Original) A power supply system as recited in claim 8 wherein said service discharge circuit comprises a switch selectively coupling an inverter capacitor to said capacitor.

11. (Original) A power supply system as recited in claim 1 wherein the common node is coupled to a chassis ground.

12. (Original) A power supply system as recited in claim 1 wherein the second terminal of the first power source is coupled to a chassis ground.

13. (Original) A power supply system as recited in claim 1 wherein said second load comprises an inverter and a motor.

14. (Original) A power supply system as recited in claim 1 wherein said first power source has a first voltage rating and said second power source has a second voltage rating equal to said first voltage rating.

15. (Currently Amended) A method of operating an electrical system for an automotive vehicle comprising:

operating a first load with a first power source;
electrically coupling [[a]] said first power source and a second power source; and
selectively coupling a first terminal or a second terminal of a second power source to an inverter in response to a sensed condition.

16. (Original) A method as recited in claim 15 wherein selectively coupling comprises selectively coupling in response to a charge of the second power source.

17. (Original) A method as recited in claim 15 wherein electrically coupling the first power source and the second power source comprises forming a common node between said first power source, said second power source.

18. (Original) A method as recited in claim 15 further comprising discharging the second power source prior to servicing.

19. (Original) A method as recited in claim 18 wherein discharging comprises coupling the second power source to a load.

20. (Currently Amended) A power supply system for an automotive vehicle comprising:

a first power source having a first positive terminal and a first negative terminal;
a second power source having a second positive terminal and a second negative terminal;

a common electrical node between the first power source and the second power source;

a first load coupled between said first positive terminal and said common node;

an inverter coupled to said first positive terminal[[.]] ;

an integrated motor generator coupled to said inverter;

a switch coupled to said second positive terminal, said second negative terminal and said inverter, said switch having a first position electrically coupling said inverter to said second positive terminal and a second position electrically coupling said second negative terminal to said inverter; and

a controller coupled to said switch controlling the switching of said switch in response to a predetermined condition.

21. (Canceled).